

## ABSTRACT OF THE DISCLOSURE

Systems and techniques to interpret signals on a noisy channel. In general, in one implementation, the technique includes: interpreting an input signal as discrete values, and in response to an inadequate signal, averaging multiple signals to improve interpretation of the input signal. The input signal can be a read signal from a storage medium, such as those found in disk drives. A read channel can include a buffer and an averaging circuit capable of different signal averaging approaches in a retry mode, including making signal averaging decisions based on a signal quality measure. Buffering read signals can be done in alternative locations in the read channel and can involve buffering of many prior read signals and/or buffering of an averaged read signal.

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